

What Is Claimed Is:

1. A method of scanning a communication received at a firewall for target content, wherein the communication is directed to one of a set of computer nodes connected to the firewall, comprising:

maintaining on the firewall a scanning module configured to scan communications received at the firewall;

maintaining a set of criteria for determining when one of said communications may be scanned at a computer node connected to the firewall instead of at the firewall;

partitioning responsibility for scanning said communications between said firewall and a first computer node connected to the firewall;

receiving a first communication at the firewall, wherein said first communication is intended for said first computer node;

identifying one or more attributes of said first communication;

determining from said criteria and said attributes whether to scan said first communication for target content on the firewall;

determining from said criteria and said attributes whether said first computer node is configured to scan said first communication for said target content; and

forwarding said first communication to said first computer node;

wherein said first computer node receives and scans the communication for said target content.

2. The method of claim 1, further comprising:

receiving a second communication at the firewall, wherein said second communication is intended for a second computer node;

identifying one or more attributes of said second communication;
determining from said criteria and said attributes of said second
communication whether said second computer node is permitted to scan said
second communication for predetermined content;
5 scanning said second communication at the firewall for said predetermined
content; and
forwarding said second communication to said second computer node;
wherein said second computer node receives but does not scan said second
communication for said predetermined content.

10

3. The method of claim 2, further comprising marking said second
communication before said forwarding to said second computer node.

15

4. The method of claim 1, wherein said partitioning comprises:
receiving scanning capabilities of a first computer node connected to the
firewall;

consulting a set of scanning requirements specified by an operator of the
firewall; and

20

specifying a set of criteria to identify when a communication may be
scanned for target content by said first computer node.

5. The method of claim 4, wherein said partitioning further comprises
receiving a set of proposed criteria from said first computer node.

25

6. The method of claim 1, wherein said determining comprises:
identifying whether said firewall is capable of scanning said first
communication for target content;

determining whether said firewall is configured to share responsibility for scanning said communications with one or more of said plurality of computer nodes;

5 determining whether said first node is capable of scanning said first communication for said target content; and

determining whether said communication satisfies one or more criteria in said set of criteria.

a 7. A method of protecting a network of computer nodes from
10 computer viruses, wherein the network of computer nodes is connected to a firewall, comprising:

maintaining a set of scanning rules for determining when a communication received at a firewall is to be scanned on the firewall and when said communication may be scanned by the destination node of said communication;

15 receiving a first communication at the firewall, wherein said first communication is intended for a first computer node connected to the firewall;

determining whether a first virus scanner is enabled on the firewall;

determining whether a second virus scanner is enabled on said first computer node;

20 identifying a first set of attributes of said first communication;

determining from said first set of attributes and said rules that said first communication is to be scanned on said first computer node;

25 forwarding said first communication to said first computer node without scanning said first communication for computer viruses, wherein said first computer node scans said first communication for computer viruses using said second virus scanner;

receiving a second communication at the firewall;

identifying a second set of attributes of said second communication;
determining from said second set of attributes and said rules that the
firewall is responsible for scanning said first communication for computer viruses;
and

5 operating said first virus scanner to scan said second communication for
computer viruses.

a
8. The method of claim 7, wherein said set of scanning rules
comprises:

10 a first subset of firewall rules for application by the firewall to determine
how to handle said communication; and

a second subset of proxy rules for application by a proxy operating on the
firewall to determine how to handle said communication.

15 9. The method of claim 7, wherein said set of scanning rules
comprises:

a first subset of scanning rules for determining when said communication
may be scanned for target content by a destination node of said communication
instead of the firewall; and

20 a second subset of scanning rules for determining when said
communication is to be scanned on said destination node and not on the firewall.

10. The method of claim 9, further comprising negotiating between the
firewall and said first node to define said first subset of said scanning rules.

25 11. The method of claim 9, further comprising receiving said second
subset of said scanning rules from a firewall administrator.

12. The method of claim 10, wherein said negotiating comprises:
establishing a secure connection between the firewall and said first node;
receiving at the firewall a proposed set of criteria for determining when
5 said first node shall scan a communication instead of the firewall; and
determining whether said proposed set of criteria conflicts with said
second subset of said scanning rules.

13. The method of claim 10, wherein said negotiating further
10 comprises providing said first subset of said scanning rules to said first node.

14. The method of claim 10, wherein said negotiating further
comprises sending an updated version of said second virus scanner to said first
node.
15

15. The method of claim 10, wherein said negotiating is performed
after said second virus scanner is configured on said first node by a user.

16. The method of claim 10, wherein said negotiating is performed
20 after said first node is rebooted.

17. A computer readable storage medium storing instructions that,
when executed by a computer, cause the computer to perform a method of
scanning a communication received at a firewall for target content, wherein the
25 communication is directed to one of a set of computer nodes connected to the
firewall, the method comprising:
maintaining on the firewall a scanning module configured to scan

communications received at the firewall;

maintaining a set of criteria for determining when one of said communications may be scanned at a computer node connected to the firewall instead of at the firewall;

5 partitioning responsibility for scanning said communications between said firewall and a first computer node connected to the firewall;

receiving a first communication at the firewall, wherein said first communication is intended for said first computer node;

identifying one or more attributes of said first communication;

10 determining from said criteria and said attributes whether to scan said first communication for target content on the firewall;

determining from said criteria and said attributes whether said first computer node is configured to scan said first communication for said target content; and

15 forwarding said first communication to said first computer node;

wherein said first computer node receives and scans the communication for said target content.

20 18. A computer readable storage medium containing a data structure configured to facilitate a determination as to whether a communication received at a firewall is to be scanned for target content on the firewall or on a destination node of the communication, the data structure comprising:

a first indicator configured to indicate whether a first communication scanning module is installed on a firewall;

25 a second indicator configured to indicate whether a second communication scanning module is installed on a destination node of a communication received at the firewall; and

a set of criteria to be applied to said communication to determine if said communication is to be scanned for target content at the firewall or at the destination node;

5 wherein said second indicator and said set of criteria are configured during a negotiation process between the firewall and the destination node.

19. An apparatus for scanning a communication received at a firewall to detect target content, wherein the communication is selectively scanned at one of the firewall and a destination node of the communication, comprising:

10 a firewall configured to receive a communication from an external entity for a first node connected to said firewall, said firewall comprising:

a first proxy module configured to establish a connection to the external entity;

15 a first scanning module configured to scan said communication for target content; and

a set of rules configured to determine whether said communication is to be scanned for said target content on said firewall or on the first node; and

20 a first computer node connected to the firewall and comprising a second scanning module, wherein said first computer node negotiates with said firewall to configure a first subset of said rules to identify when said first computer node shall scan said communication rather than said firewall;

25 wherein a measurement of performance of said firewall is increased as a result of said first node scanning one or more communications rather than said firewall.

20. The apparatus of claim 19, wherein said first node further

comprises a negotiation module to negotiate with said firewall on behalf of multiple scanning modules, including said second scanning module.

21. The apparatus of claim 19, wherein said firewall further comprises
5 a negotiation module to negotiate with said first node on behalf of multiple proxies, including said first proxy module.

22. The apparatus of claim 19, wherein said set of rules comprises:
a first set of criteria to be applied for all nodes connected to said firewall
10 and all communications received at said firewall to determine if a first communication received at said firewall for a first destination node connected to said firewall may be scanned for target content by said first destination node rather than said firewall; and

a second set of criteria to be applied for a subset of said all
15 communications to determine if said first communication may be scanned for said target content by said second destination node rather than said firewall;

wherein said second set of criteria are applied by said first proxy module and said subset of all communications includes communications formatted according to a predetermined communication protocol; and

20 wherein said first set of criteria is applied prior to said second set of criteria.